

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

LISTING OF CLAIMS

Claim 1 (Currently Amended): A portable drill hole measuring device comprising:
a frame including a surface mounted elongated protective element comprising a lower part and an upper part;
at least one sensor;
an elongated flexible transmission element connected to the sensor;
at least one transfer device mounted to the frame, by which the transmission element can be moved longitudinally in at least one direction for moving the sensor in the drill hole;
and the transfer device comprises a reel, around which the transmission element can be wound,
the lower part of the protective element is designed such that it can be inserted partly into the drill hole,
and wherein the sensor is arranged to be moved into the protective element by means of the transfer device and wherein the sensor is arranged to be moved outside the lower part of the protective element for performing measurement of a uncased drill hole.

Claim 2 (Previously Presented): A measuring device as claimed in claim 1, wherein at a first end of the protective element there is a conical portion, which can be inserted into the drill hole at least partly.

Claim 3 (Previously Presented): A measuring device as claimed in claim 1, wherein at a first end of the protective element there is at least one support piece, which is arranged to hold the protective element in an upright position.

Claim 4 (Currently Amended): A measuring device as claimed in claim 1, wherein the protective element is designed at least for ~~its~~ a first end portion of the protective element such that the protective element can be inserted at least partly into the drill hole.

Claim 5 (Previously Presented): A measuring device as claimed in claim 1, wherein the protective element is a tubular piece.

Claim 6 (Cancelled).

Claim 7 (Currently Amended): A measuring device as claimed in claim 1, wherein ~~the transmission element is a flexible, elongated piece,~~
~~the transfer device comprises a reel, around which the transmission element can be~~
~~wound,~~
~~and~~ is provided with a handle for rotating the reel manually.

Claim 8 (Currently Amended): A measuring device as claimed in claim 1, wherein
~~the transmission element is a flexible, elongated piece,~~
~~the transfer device comprises a reel, around which the transmission element can be~~
~~wound,~~
~~and the transfer device comprises a motor for rotating the reel.~~

Claim 9 (Previously Presented): A measuring device as claimed claim 1, wherein the
measuring device comprises at least one actuator for pushing the protective element partly into
the drill hole.

Claim 10 (Previously Presented): A measuring device as claimed in claim 1, wherein
the transmission element is a flexible, elongated piece,
the measuring device comprises a container, which is arranged stationary with respect to
a frame of the measuring device, for storing the transmission element,
the transfer device comprises at least one roll, which is arranged to move the transmission
element in the longitudinal direction by friction,
and the transmission element is arranged to settle within a space delimited by an inner
surface of the container.

Claim 11 (Previously Presented): A measuring device as claimed in claim 1, wherein
the transmission element is a flexible, elongated piece,

the measuring device comprises a container, which is arranged stationary with respect to a frame of the measuring device, for storing the transmission element,

the transfer device comprises at least one roll, which is arranged to move the transmission element in a longitudinal direction by friction,

the transfer device is arranged rotatably about the longitudinal axis of the protective element,

and the transmission element is arranged to settle within a space delimited by an inner surface of the container.

Claim 12 (Previously Presented): A measuring device as claimed in claim 1, wherein the measuring device is arranged in a rock drilling unit.

Claim 13 (Currently Amended): A measuring device as claimed in claim 1, wherein the measuring device is arranged in a charging unit, which comprises a magazine from which cartridges are charged into a drill hole.

Claim 14 (Currently Amended): A rock drilling unit comprising:
at least one elongated feeding beam;
at least one rock drilling apparatus, which is movable ~~with respect to~~ on the feeding beam;
and at least one measuring device for measuring drill holes, the measuring device comprising: a frame; at least one sensor that may be arranged in a drill hole; an elongated

transmission element connected to the sensor; and at least one transfer device, by which the transmission element may be moved longitudinally for moving the sensor in the drill hole, and wherein, the measuring device includes an elongated protective element, into which the sensor is arranged to be moved by means of the transfer device.

Claim 15 (Previously Presented): A rock drilling unit as claimed in claim 14, wherein a first end portion of the feeding beam comprises a first holder for mounting the measuring device, and a second end portion of the feeding beam comprises a second holder for mounting at least the sensor of the measuring device, the measuring device is mountable on the first holder for measuring the drill hole by means of the sensor, and at least the sensor of the measuring device is mountable on the second holder for positioning and aligning the drilling unit by means of the sensor.

Claim 16 (Previously Presented): A rock drilling unit as claimed in claim 14, the rock drilling unit comprises at least one actuator for moving the protective element of the measuring device longitudinally, the protective element can be inserted into the drill hole, and the sensor can be inserted inside the protective element into the drill hole.

Claim 17 (New): A measuring device as claimed in claim 1, wherein the transmission element is hose-like and is provided with a data transfer cable.

Claim 18 (New): A rock drilling unit as claimed in claim 14, wherein the measuring device comprises a control unit, and a data transfer cable is arranged between the sensor and the control unit.

Claim 19 (New): A feed beam comprising:
at least one measuring device for measuring drill holes, the measuring device comprising:
a frame, at least one sensor for measuring drill holes that may be arranged in a drill hole; an elongated transmission element connected to the sensor; and at least one transfer device, by which the transmission element may be moved longitudinally for moving the sensor in the drill hole,

and wherein the measuring device include an elongated protective element, into which the sensor is arranged to be moved by means of the transfer device,

and the at least one sensor of the measuring device is further arranged to measure at least one of the following features: position of the feeding beam, direction of the feeding beam.

Claim 20 (New): A measuring method comprising:
measuring drill holes by means of at least one measuring device arranged in connection with a feeding beam and comprising at least one sensor; and
inserting the at least one sensor into the drill hole,

and using the same sensor of the measuring device for measuring at least one of the following features of the feeding beam: position, direction.